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der the "J&M Marks." Simply put, there is no evidence in this record which establishes that opposer's various J&M marks, or any one of them, are famous and well known to the purchasing public.

Another *du Pont* factor to be considered in the case now before us is "the variety of goods on which a mark is or is not used (house mark, 'family' mark, product mark)." Opposer has registered variations of its "J&M Marks" for shoes as well as other clothing items, and also for shoe products such as "shoe horns," "shoe polishes," "cedar shoe trees"; leather accessory goods such as "wallets," "travel bags," "card cases," "business card holders"; and "closet accessories namely cedar blocks. . ."; as well as for retail stores. While this factor may favor a finding that confusion is likely even if the goods are not obviously related, the parties' goods in issue, as stated previously, are in-part identical and in-part related. Thus, this factor, as well as the relatedness of the goods, would favor opposer. See *Uncle Ben's Inc. v. Stubenberg International Inc.*, 47 USPQ2d 1310 (TTAB 1998).

Finally, we turn to the *du Pont* factor relating to actual confusion. Despite simultaneous use since 1983, there have been no reported instances of actual confusion. Although evidence of actual confusion is admittedly difficult to obtain, twenty years of contemporaneous use is a significant amount of time. We find that this factor is neutral or weighs in applicant's favor.

Viewing the evidence in its entirety, we find the single *du Pont* factor of the dissimilarities of the marks overwhelms the other factors. *Champagne Louis Roederer S.A. v. Delicato Vineyards*, *supra*; and *Kellogg Co. v. Pack'em Enterprises Inc.*, *supra*. The contemporaneous use of these marks, as has occurred since 1983, in connection with the respective goods and services, is not likely to cause confusion as to the source or sponsorship of such goods and services. See *Burns Philip Food Inc. v. Modern Products Inc.*, 24 USPQ2d 1157 (TTAB 1992), *aff'd*, unpub'd, but appearing at 1 F.3d 1252, 28 USPQ2d 1687 (Fed. Cir. 1993).

Dilution

Inasmuch as opposer has not established that its "J&M Marks" are renowned under the *du Pont* factors for purposes of its likelihood of confusion claim, it is clear that opposer

likewise has not established that its "J&M Marks" are famous under Section 43(c) for purposes of its dilution claim. Opposer cannot prevail on its pleaded ground of dilution. See Section 43(c) of the Trademark Act; and *Toro Co. v. ToroHead Inc.*, *supra*.

Decision: The opposition is dismissed.

Eaton Corp. v. Rockwell International Corp.

U.S. Court of Appeals Federal Circuit

Nos. 01-1633, 02-1034, -1206

Decided March 27, 2003

PATENTS

[1] Patent construction — Claims — Broad or narrow (§ 125.1303)

Patent construction — Claims — Process (§ 125.1309)

Preamble of method claim for truck transmission shift control system limits claimed invention, since method steps of claim require manipulation of particular structures that are identified and described only by preamble, during particular sequence of events defined only by preamble, and since claim therefore is example of claim drafter choosing to use both preamble and body of claim to define subject matter of claimed invention, as opposed to preamble reciting intended use for invention that is defined in its entirety by claim body.

[2] Infringement — Literal infringement (§ 120.05)

Accused truck transmission shift control system does not infringe method claim for such system, since accused system requires driver to press "shift intent" switch and then move shift lever to change gears, whereas gear shifting in claimed system is performed automatically by "means" in response to computer program running on information processing unit.

[3] Patentability/Validity — Construction of claims (§ 115.03)

JUDICIAL PRACTICE AND PROCEDURE

Procedure — New trial; JMOL (§ 410.30)

Appellate court's adoption of new patent claim construction does not entitle infringement defendants to new trial on counterclaim for declaratory judgment that patent in suit is invalid for anticipation and obviousness, since adoption of new claim construction is insufficient, without more, to require new trial, and defendants have not shown prejudicial error in manner in which trial was conducted, and since narrower claim construction adopted on appeal will not make it easier for defendants to establish invalidity at new trial.

PATENTS

[4] Patentability/Validity — Anticipation — In general (§ 115.0701)

Patentability/Validity — Specification — Enablement (§ 115.1105)

Substantial evidence supports jury's finding that inventor of patent in suit did not derive invention of method claim for truck transmission shift control system from another transmission manufacturer, since derivation requires proof, by clear and convincing evidence, of prior conception of invention by another, as well as communication of that conception sufficient to enable one of ordinary skill in art to make patented invention, and since there is substantial evidence to support conclusion that any communications by manufacturer to inventor about manufacturer's system were insufficiently detailed to constitute complete and enabling disclosure of claimed invention.

[5] Practice and procedure in Patent and Trademark Office — Prosecution — Duty of candor — Citation of references (§ 110.0903.08)

Infringement — Defenses — Fraud or unclean hands (§ 120.1111)

Defendants failed to show that inventor or his attorney committed inequitable conduct by failing to disclose prior art truck transmission

shifting systems during prosecution of patent in suit, since plaintiff presented credible evidence of good faith, and defendants have neither challenged this evidence nor provided any other explanation for why it would be erroneous to conclude that evidence showed good faith.

Particular patents — General and mechanical — Transmission shift control system

4,850,236, Braun, vehicle drive line shift control system and method, judgment of infringement reversed; judgment that patent is not invalid affirmed; judgment of no inequitable conduct affirmed.

Appeal from the U.S. District Court for the District of Delaware, Farnan, J.

Action by Eaton Corp. against Rockwell International Corp. and Meritor Automotive Inc., n/k/a ArvinMeritor Inc., for patent infringement. Defendants appeal from judgment and permanent injunction entered on jury verdict of infringement. Reversed in part, vacated in part, and affirmed in part.

Raphael V. Lupo, Donna M. Tanguay, Mark G. Davis, and Natalia V. Blinkova, of McDermott, Will & Emery, Washington, D.C.; Michael H. King and Keith P. Schoeneberger, of Ross & Hardies, Chicago, Ill.; William H. Mandir, of Sughrue, Mion, Washington, for plaintiff-appellee.

Richard W. McLaren Jr., Jerold B. Schnayer, Walter J. Kawula Jr., Daniel R. Cherry, and Philip D. Segrest Jr., of Welch & Katz, Chicago; M. Lee Murrah, of ArvinMeritor Inc., Troy, Mich., for defendants-appellants.

Before Newman, Dyk, and Prost, circuit judges.

Prost, J.

Rockwell International Corporation and ArvinMeritor, Inc., formerly known as Meritor Automotive Incorporated, (collectively, "Meritor") appeal from the final judgment and entry of permanent injunction by the United States District Court for the District of Delaware in favor of Eaton Corporation ("Eaton") after a jury returned a verdict of patent infringement by Meritor. Because we disagree with the district court's claim con-

struction, we reverse-in-part, vacate-in-part, and affirm-in-part, as described more fully in this opinion.

BACKGROUND

Eaton and Meritor are competitors in the market for heavy-duty truck transmissions. Heavy-duty trucks such as eighteen-wheelers often have ten or more gears, requiring considerable skill by a driver to manually shift. The driver shifts by first depressing a clutch pedal to disengage a master clutch. Then the driver manually moves the shift lever out of the present gear and releases the clutch pedal. At the same time, the driver depresses the fuel pedal, causing the gears of the engine to rotate at a speed that will allow the driver, using the shift lever, to smoothly shift into the new gear. An experienced driver can manually shift without depressing the clutch pedal by manipulating the gas pedal so that the gears reach a zero torque point, at which time the driver shifts.

Both Eaton and Meritor have attempted to design transmissions that simplify and improve the shifting process. Eaton has developed a transmission that uses automatic shifting in the higher gears and manual shifting in the lower gears. Using automatic shifting in only the top gears can permit optimal highway fuel economy while preventing the costs of automating from exceeding the savings from improved fuel economy. One disadvantage of automatic shifting is that an unexpected shift can cause the driver to lose control of the truck, particularly when the truck is traveling on slippery roads. In contrast, Meritor has developed a transmission—called the Engine Synchro Shift (“ESS”) transmission—that it characterizes as fully manual, allowing the driver complete control over which gear the truck is in at any time. To operate the ESS, the driver senses when to shift and in which direction. The driver pushes a “shift intent” switch to initiate an engine fuel controller and then moves the gear selection lever to change gears. The driver does not need to depress the clutch pedal or the gas pedal. Instead, the system automatically manipulates the fuel so that the gears reach the appropriate rate of rotation for the driver to shift gears.

Eaton owns U.S. Patent No. 4,850,236 (“the ‘236 patent”) for a “Vehicle Drive Line Shift Control System and Method.” This patent describes and claims a “vehicular transmission shift control system . . . for ef-

fecting automatic shifting between a group of sequentially related forward gear ratios provided by the transmission . . .” ‘236 Patent, Abstract. Eaton sued Meritor for infringement of the ‘236 patent, alleging that Meritor infringed, induced infringement, and contributed to the infringement of claims 14-19. Claim 14, the only independent claim at issue, reads:

14. A multiple step method for controlling an automatic mechanical vehicle driveline system having a throttle-controlled engine (5), a transmission (2) having a plurality of gear ratio combinations selectively engagable between a transmission input shaft and a transmission output shaft (10), said transmission input shaft being operatively connected to said engine by means of a selectably engagable and disengagable master clutch (8) providing a driving connection between said engine and said input shaft, said automatic mechanical vehicle driveline system comprising an information processing unit (16) having means for receiving a plurality of input signals including (1) input signals (30) indicative of at least one of currently engaged, last engaged and about to be engaged gear ratio of the vehicle driveline; (2) an input signal (14) indicative of the rotational speed of the transmission input shaft; and, (3) an input signal (22) indicative of the rotational speed of the transmission output shaft, said processing unit including means for processing said input signals in accordance with a program and for generating output signals whereby said driveline system is operated in accordance with said program, and means (26 and 34) associated with said driveline system effective to actuate said driveline system to effect engagement of said gear ratio combinations in response to said output signals from said processing unit, a gear ratio change of said driveline system comprising the sequence of disengaging a first positive clutch and then engaging a second positive clutch, both of said positive clutches comprising a first clutch member (80, 82, 84) having a rotational speed dependent on the rotational speed of the vehicle engine and a second clutch member (86, 88, 90) having a fixed rotational speed dependent on vehicle speed; said method characterized by:

preamble

(1) retaining said vehicle master clutch (8) engaged during the gear ratio shift in said drive train;

(2) urging said first and second members of said first clutch into a disengaged condition while, in sequence, increasing the supply of fuel supplied to the vehicular engine to cause the engine to rotate at a speed sufficient to cause said first member of said first positive clutch to drive the second member of said first positive clutch and decreasing the supply of fuel to the engine to cause the second member of said first positive clutch to drive the first member of the first positive clutch.

A jury found that Meritor literally infringed claims 14-19 of the '236 patent and that Meritor's infringement was willful. With respect to Meritor's counterclaims for invalidity and unenforceability, the jury found that the '236 patent was not invalid and the district court, after holding a separate bench trial for Meritor's counterclaim of unenforceability, found no inequitable conduct. The district court also denied Meritor's renewed motion for judgment as a matter of law or in the alternative for a new trial or remittitur, entered judgment against Meritor in the amount of \$2,942,925, and issued a permanent injunction. Meritor appeals, arguing that the district court misconstrued claim 14, it failed to properly instruct the jury regarding claim construction, and that under a proper construction Meritor does not infringe. Meritor also argues that it is entitled to judgment in its favor, or a new trial, on the issues of invalidity and unenforceability. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

We review *de novo* a district court's decision to grant or deny a motion for judgment as a matter of law ("JMOL") by reapplying the JMOL standard. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 975, 34 USPQ2d 1321, 1326 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 [38 USPQ2d 1461] (1996). This court will reverse a denial of JMOL only "if the jury's factual findings are not supported by substantial evidence or if the legal conclusions implied from the jury's verdict cannot in law be supported by those findings." *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454, 46 USPQ2d 1169, 1172 (Fed. Cir. 1998) (en

banc). In making this determination, we draw all reasonable inferences in favor of the prevailing party without substituting our view of conflicting evidence for that of the jury. *SIBIA Neurosciences, Inc. v. Cadus Pharm. Corp.*, 225 F.3d 1349, 1355, 55 USPQ2d 1927, 1930 (Fed. Cir. 2000).

"The denial of a motion for a new trial is a procedural issue not unique to patent law which we review under the law of the regional circuit where the appeal from the district court normally would lie—in this case, the Third Circuit." *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 308 F.3d 1167, 1182, 64 USPQ2d 1545, 1555 (Fed. Cir. 2002). The Third Circuit

review[s] a District Court's decision whether to grant a new trial on the basis that the verdict is against the weight of the evidence for abuse of discretion. Deferential review is appropriate when considering whether a verdict is against the weight of the evidence "because the district court was able to observe the witnesses and follow the trial in a way that we cannot replicate by reviewing a cold record." New trials because the verdict is against the weight of the evidence are proper only when the record shows that the jury's verdict resulted in a miscarriage of justice or where the verdict, on the record, cries out to be overturned or shocks our conscience.

Greenleaf v. Garlock, Inc., 174 F.3d 352, 365-66 (3d Cir. 1999) (citations omitted).

"This court reviews a district court's judgment following a bench trial for errors of law and clearly erroneous findings of fact." *Allen Eng'g Corp. v. Bartell Indus.*, 299 F.3d 1336, 1343-44, 63 USPQ2d 1769, 1772 (Fed. Cir. 2002). "Inequitable conduct is a matter within the sound discretion of the trial court and is reviewed for an abuse of that discretion." *Id.* at 1344, 63 USPQ2d at 1772 (citing *Kingsdown Med. Consultants, Ltd. v. Hollister Inc.*, 863 F.2d 867, 876, 9 USPQ2d 1384, 1392 (Fed. Cir. 1988) (en banc in relevant part)). To overturn the district court's discretionary ruling of no inequitable conduct, Meritor "must establish that the ruling is based upon clearly erroneous findings of fact or a misapplication or misinterpretation of applicable law or that the ruling evidences a clear error of judgment on the part of the district court." *Kingsdown*, 863 F.2d at 876, 9 USPQ2d at 1392.

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Determining whether a patent claim has been infringed requires a two-step analysis. "First, the claim must be properly construed to determine its scope and meaning. Second, the claim as properly construed must be compared to the accused device or process." *Carroll Touch, Inc. v. Electro Mech. Sys., Inc.*, 15 F.3d 1573, 1576, 27 USPQ2d 1836, 1839 (Fed. Cir. 1993). Claim construction is a question of law which we review *de novo*. *Cybor Corp.*, 138 F.3d at 1456, 46 USPQ2d at 1174. The application of a properly construed claim to an accused device is a question of fact which, following a jury trial, we review for substantial evidence. *PIN/NIP, Inc. v. Platte Chem. Co.*, 304 F.3d 1235, 1243, 64 USPQ2d 1344, 1349 (Fed. Cir. 2002).

A

The district court first considered claim construction when denying Eaton's motion for a preliminary injunction. In particular, the district court ruled that the preamble of claim 14 is not a limitation of the claim and that the claim language does not require automatic shifting. *Eaton Corp. v. Rockwell Int'l Corp.*, C.A. No. 97-421-JJF, 1997 U.S. Dist. LEXIS 22674 (D. Del. Nov. 4, 1997). The district court later held a *Markman* hearing, but did not issue a written opinion construing the claims. Instead, the court made the following oral ruling on the first day of trial:

With regard to the pending matters of claim interpretation, I have considered the evidence offered at the *Markman* hearing as well as submission of the parties and their contentions with regard to really a relatively limited issue on claim interpretation, and have concluded as follows: After considering the claim language and the specifications as well as the contentions of the parties regarding claim interpretation, I have concluded (1) that Claim 14 is an independent claim upon which Claims 15 through 19 are dependent; (2) Claim 14 is a method claim which claims an automated or automatic vehicle driveline system; (3) the term "automatic" as used in Claim 14 refers to the control of the driveline, not the gear shifting apparatus required to operate the transmission.

In essence, the Court has concluded that "automatic" as contained in Claim 14 re-

lates to the driveline and not to any matter of how the gears are shifted on the device. At the end of trial, the district court instructed the jury as follows:

Before you can decide whether the defendants may have infringed Eaton's '236 patent, you will have to understand the patent "claims." . . . The claims are "word pictures" intended to define, in words, the boundaries of the invention described and illustrated in the patent. Only the claims of the patent can be infringed. . . . I am now going to define some terms in this patent. . . . This is called claim construction or interpretation. In the United States courts, claim construction or interpretation has been determined to be a matter of law. So you are bound to follow the claim construction that I give you with regard to the claims of the patent.

In this case we are considering, as I've told you, claims 14 through 19. I've concluded that these claims teach "a multiple step method for controlling an automatic mechanical vehicle driveline system."

I construe claim 14 of the '236 patent to mean the following: Claim 14 is an independent claim, as I've told you, upon which claims 15 through 19 are dependent.

I have further concluded that claim 14 is a method claim which teaches or claims an automated or automatic system for the control of fuel.

* * *

In this case the plaintiff Eaton has alleged that the defendants literally infringed the '236 patent. For the defendants' product to literally infringe any one of the plaintiff's patent claims, the subject matter of the patent claim must be found in defendants' products. In other words, plaintiff's patent claim is literally infringed if defendants' product includes each and every component, part or method step in plaintiff's patent claim.

Meritor argues that the district court committed legal error by reducing claim 14 to a statement of intended purpose. According to Meritor, the district court should have given the jury particular instructions about the meaning of the terms "information processing unit" and "means (26 and 34)" found in the preamble, and about whether the "urging"

step of the method excludes a method in which a driver initiates the shifting process and provides the shifting force. Meritor argues that the preamble of claim 14 is a limitation of the claim because many limitations in the body of the claim find antecedent basis only in the preamble and the preamble is necessary to define the invention. Meritor also argues that the device described by the preamble—not the driver—must perform the “urging” step of claim 14. Based on its interpretation of the preamble as a limitation of claim 14, Meritor concludes that the claim as properly interpreted is directed to an “automatic mechanical vehicle driveline system” in which the engagement and disengagement of the gears is performed *automatically*, i.e., without requiring the manual intervention of the driver. Eaton responds that the preamble of claim 14 merely states an intended purpose, and that the structure in the preamble that provides antecedent basis for elements in the body of the claim is not limiting because the preamble is merely providing a “reference point” as in *Vaupel Textilmaschinen KG v. Meccanica Euro Italia S.P.A.*, 944 F.2d 870, 880, 20 USPQ2d 1045, 1053 (Fed. Cir. 1991).

“In general, a preamble limits the [claimed] invention if it recites essential structure or steps, or if it is ‘necessary to give life, meaning, and vitality’ to the claim.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808, 62 USPQ2d 1781, 1784 (Fed. Cir. 2002) (quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999)). “[A] claim preamble has the import that the claim as a whole suggests for it. In other words, when the claim drafter chooses to use *both* the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects.” *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995). When limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention. See, e.g., *Electro Sci. Indus. v. Dynamic Details, Inc.*, 307 F.3d 1343, 1348, 64 USPQ2d 1781, 1783 (Fed. Cir. 2002); *Rapoport v. Dement*, 254 F.3d 1053, 1059, 59 USPQ2d 1215, 1219 (Fed. Cir. 2001); *Pitney Bowes*, 182 F.3d at 1306, 51

USPQ2d at 1166. On the other hand, “[i]f the body of the claim sets out the complete invention,” then the language of the preamble may be superfluous. *Schumer v. Lab. Computer Sys., Inc.*, 308 F.3d 1304, 1310, 64 USPQ2d 1832, 1837 (Fed. Cir. 2002); *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1373-74, 58 USPQ2d 1508, 1512 (Fed. Cir. 2001).

Claim 14 is for a “multiple step method for controlling an automatic mechanical vehicle driveline system having” the structure set forth in the remainder of the preamble. The body of the claim has two steps. The first step requires “retaining said vehicle master clutch (8) engaged during the gear ratio shift in said drive train.” This step refers to structure that is identified and defined in the preamble: the vehicle master clutch and a drive train (which the parties agree is the same thing as the driveline). From the preamble we know that the drive train to be controlled has, among other things, a transmission with “a plurality of gear ratio combinations [that are] selectively engagable” and that the “transmission input shaft [is] operatively connected to said engine by means of a selectably engagable and disengagable master clutch.” The presence of these structures permits the performance of the first step of the claimed method, for without a selectively engagable vehicle master clutch operable with respect to a transmission in the drive train as described in the preamble, the step of “retaining said vehicle master clutch (8) engaged during the gear ratio shift in said drive train” could not be performed. The plain language of the claim requires the operation of this structure as the first step of the claimed method. Moreover, the claim language makes clear that not any vehicle clutch or drive train will do. When the body of the claim refers to “said vehicle master clutch (8),” and “said drive train,” it is referring back to the particular clutch and the particular drive train previously described in the preamble.

The first step of the claimed method also requires that it be performed “during the gear ratio shift in said drive train.” The preamble states that “a gear ratio change of said driveline system compris[es] the sequence of disengaging a first positive clutch and then engaging a second positive clutch” By stating that the retaining step is performed “during the gear shift ratio,” the claim requires this step to be performed during the particular

sequence defined by the preamble as the gear ratio shift.

The second step of the method also requires the operation of structure that is first identified in the preamble, including a "first clutch," "first and second members of said first clutch," and "the vehicle engine." Without the benefit of the preamble, the "members" of the first clutch could be any part of the clutch. But from the preamble, we know that the first clutch member refers to "first clutch member (80, 82, 84) having a rotational speed dependent on the rotational speed of the vehicle engine" and the second clutch member refers to "second clutch member (86, 88, 90) having a fixed rotational speed dependent on vehicle speed." And, as with the first step of the claimed method, the second step of the claimed method requires the operation of "said first and second members of said first clutch," thereby referring to the particular first clutch and particular first and second members previously identified and described in the preamble.

[1] The method steps of claim 14 thus require the manipulation of particular structures that are identified and described only by the preamble, during a particular sequence of events defined only by the preamble. See *Griffin v. Bertina*, 285 F.3d 1029, 1033, 62 USPQ2d 1431, 1434 (Fed. Cir. 2002) ("Consideration of the preamble gives meaning and purpose to the manipulative steps in this case."). Claim 14 is an example of "the claim drafter choos[ing] to use both the preamble and the body to define the subject matter of the claimed invention," *Bell Communications*, 55 F.3d at 620, 34 USPQ2d at 1820, as opposed to a preamble reciting an intended use for an invention that is defined in its entirety by the body of the claim, *Schumer*, 308 F.3d at 1310, 64 USPQ2d at 1837. We therefore conclude that the preamble of claim 14 limits the claimed invention.

We do not agree with Eaton that the drive line structure in the preamble can be ignored because it merely provides a "reference point" during one of the claimed method steps. Eaton relies on *Vaupel*, 944 F.2d at 880, 20 USPQ2d at 1053, and *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 48 USPQ2d 1225 (Fed. Cir. 1998). *Vaupel* construed a method claim for "forming a plurality of patterned strips of fabric woven from threads of synthetic material using a broad weaving ma-

chine having a sley and a breast beam." 944 F.2d at 872, 20 USPQ2d at 1047 (emphasis added). The body of the claim recited the step of "guiding the woven fabric leaving the position where the sley beats up the fabric to allow movement towards the breast beam of said machine, but not in the opposite direction." *Id.* (emphasis added). The accused infringer argued that its weaving machine did not have a "breast beam" and therefore it could not perform this method step. *Id.* at 879-80, 20 USPQ2d at 1053. After considering this argument, as well as the claims, written description and drawings, prosecution history, and expert testimony, the district court concluded that

in the weaving art today the term "breast beam" does not necessarily mean a specific loom part and can mean a general area at the front of the loom. The Court further finds that as used in the '650 patent the term is used only to fix the direction of movement of the woven fabric on the loom.

Vaupel Textilmaschinen KG v. Meccanica Euro Italia, S.P.A., ST-C-88-127, slip op. at 23 (W.D.N.C. June 6, 1990). On appeal, "we conclude[d] that the district court was correct. 'Breast beam' and 'breast plate' are not structural limitations of Claims 1 and 2; as used in Claims 1 and 2, they indicate a reference point to fix the direction of movement of the woven fabric from the loom." *Vaupel*, 944 F.2d at 880, 20 USPQ2d at 1053. We did not conclude, as Eaton would have us do here, that the term "breast beam" could be ignored because it appeared in the preamble; in fact, the analysis in *Vaupel* has nothing to do with the issue of whether the preamble was necessary to define a complete invention. Rather, the issue was the proper meaning of the term "breast beam." We agreed with the district court that the term "breast beam" meant "a reference point to fix the direction of movement of the woven fabric from the loom" and that this meaning should be applied in the infringement analysis. Thus, while we concluded that the term "breast beam" was not a structural limitation of the claims, it was nevertheless a limitation.

The structural terms in the preamble of the '236 patent are not subject to this same kind of interpretation. The parties do not argue that any limitation in the preamble—while reciting something that might at first appear to be a structure—is nevertheless understood to refer

to a direction of movement, as was the case in *Vaupel*. Instead, the preamble of the '236 patent recites structures that are indeed understood to be structures.

There is yet another reason why *Vaupel* does not apply in this case. The method claim in *Vaupel* does not require that any step of the claimed method be performed by the breast beam; nor does any step of the claimed method require the operation of the breast beam. In contrast, claim 14 of the '236 patent requires the manipulation and operation of structure that is identified and described by the preamble. For example, the first step of the claimed method requires manipulation of the vehicle master clutch at a time when particular components of the drive train are operating in a manner defined by the preamble. The second step of the claim likewise requires the manipulation of the first and second members of said first clutch, thereby leading to a sequence of events defined by the operation of additional structure of the drive train. Consideration of the preamble therefore "gives meaning and purpose to the manipulative steps" of the claim. *Griffin*, 285 F.3d at 1033, 62 USPQ2d at 1434.

Eaton also relies on *C.R. Bard*, which is no more applicable than *Vaupel*. In *C.R. Bard*, the claim at issue was for

A biopsy needle for use with a tissue sampling device having a housing with a forward end, a first slide mounted for longitudinal motion within said housing, and a second slide mounted for longitudinal motion within said housing, said biopsy needle comprising:

a hollow first needle having proximal and distal ends;

a second needle extending through said hollow first needle and freely slidable there-within, said second needle having proximal and distal ends;

a first head mounted to said proximal end of said hollow first needle, said first head including first flange means associated therewith *for coupling said hollow first needle to said first slide for longitudinal motion both toward and away from said forward end of said housing*; and

a second head mounted to said proximal end of said second needle, said second head including second flange means associated

therewith *for coupling said second needle to said second slide for longitudinal motion both toward and away from said forward end of said housing*.

157 F.3d at 1348-49, 48 USPQ2d at 1229 (emphases added). The preamble of this claim is an example of a statement of intended use of the claimed invention: the plain language of the preamble states that the biopsy needle is "for use with" the structure described by the remainder of the preamble. Moreover, the claim is for a biopsy needle, not the combination of the needle and the housing described by the preamble. The emphasized language in the body of the claim, while referring back to the housing structure first identified in the preamble, merely describes what the claimed "first head" and "second head" of the needle are *for* (for coupling to the structure in the preamble). The plain language of the claim does not require an actual coupling to this structure, thereby negating the necessity of having this structure as part of the claimed invention. Thus, we interpreted the preamble of this claim to "recit[e] the portion and structure of the gun housing into which the needles fit, and [to] provid[e] reference points in the gun that aid in defining the needles as set forth in the body of the claim." *Id.* at 1350, 48 USPQ2d at 1231. The structure claim in *C.R. Bard* is therefore very different from method claim 14 of the '236 patent, which has a preamble that does much more than state an intended use of the invention, and method steps that require the operation or manipulation of the particular structure identified and described by the preamble.

We therefore conclude that the preamble of claim 14 of the '236 patent is not like the claim language at issue in either *C.R. Bard* or *Vaupel*. Instead, as in *Bell Communications* and *Griffin*, we conclude that the inventor chose to use both the preamble and the body of the claim to define his invention. The preamble therefore limits the claimed invention. As such, claim 14 as properly construed requires an "automatic mechanical vehicle driveline system" that includes, among other things, "an information processing unit" for processing signals in accordance with a program for causing the engagement of gear ratio combinations.

B

It is undisputed that Meritor's ESS system requires some amount of driver intervention in

order to shift gears. A driver needs to first push a button, indicating the desire to shift gears either up or down. Then an engine control software module in the ESS system sends an electrical signal to the engine to automatically vary the fuel level to the engine, causing reversals of torque in the driveline and enabling the disengagement of the gears by the driver. While the ESS system may automatically control the fuel level to the engine in order to reach a condition where the gears can be shifted, it is the driver that must "hit the intent switch and move the lever" to shift gears.

[2] In contrast, the particular driveline that is to be controlled by the method of claim 14 includes

an information processing unit (16) having means for receiving a plurality of input signals including (1) input signals (30) indicative of at least one of currently engaged, last engaged and about to be engaged gear ratio of the vehicle driveline; (2) an input signal (14) indicative of the rotational speed of the transmission input shaft; and, (3) an input signal (22) indicative of the rotational speed of the transmission output shaft, said processing unit including means for processing said input signals in accordance with a program and for generating output signals whereby said driveline system is operated in accordance with said program, and means (26 and 34) associated with said driveline system effective to actuate said driveline system to effect engagement of said gear ratio combinations in response to said output signals from said processing unit.

Gear shifting (effecting engagement of said gear ratio combinations) in the claimed driveline is performed by means (26 and 34) in response to a computer program running on the claimed information processing unit. This part of the claim is not met by Meritor's ESS system, wherein a driver—not a computer program—makes a decision to move a gear shift lever at the appropriate time, and then the driver—not a means (26 and 34)—moves the lever to shift gears.¹ Meritor's ESS system, having a driveline that requires a driver

to shift gears, cannot perform the claimed method because the engagement of gear ratio combinations does not occur automatically as a result of a program running on an information processing unit.² We therefore reverse the judgment of infringement entered against Meritor.

II

Meritor counterclaimed for a declaratory judgment that the '236 patent was invalid. The jury returned a verdict that claims 14-19 were not invalid based on obviousness, lack of enablement, failure to disclose the best mode, derivation, or anticipation. The district court denied Meritor's renewed motion for judgment as a matter of law, or in the alternative for a new trial on these issues. Meritor limits its arguments on appeal to three: that the claims are anticipated under the district court's erroneous claim construction; that a new trial on anticipation and obviousness should be granted if this court adopts a new claim construction; and that the inventor of the '236 patent derived its invention from a third party.

A

Eaton argues that it is entitled to judgment as a matter of law that the claims are invalid either under 35 U.S.C. § 102(b) based on the Dana Top 4 system or under § 102(a) and (g) based on the Cummins Top 2 system. Anticipation is a factual question, and a jury verdict regarding anticipation is reviewed after trial for substantial evidence. *Minn. Mining & Mfg.*

e.g., Medtronic, Inc. v. Advanced Cardiovascular Sys., 248 F.3d 1308, 1311-13, 58 USPQ2d 1607, 1613-15 (Fed. Cir. 2001). The function required by the claim is "to actuate said driveline system to effect engagement of said gear ratio combinations in response to said output signals from said processing unit." Element 26 is shown and described in the specification as a fuel control, whereas element 34 is shown and described as an automatic shift actuator (which is different from shift lever 36). '236 Patent, col. 4, l. 62 – col. 5, l. 15.

² Eaton presented no evidence at trial that Meritor infringed under the doctrine of equivalents and, as a result, the district court granted Meritor's motion for judgment as a matter of law on that issue. Eaton has not challenged this ruling nor requested the opportunity for a new trial on equivalents should Meritor prevail in overturning the district court's claim construction. We also note that Eaton does not deny Meritor's claim on appeal that under Meritor's suggested claim construction, the ESS system does not infringe.

¹ Means (26 and 34) are written in means-plus-function format and are to be interpreted according to 35 U.S.C. § 112, ¶ 6 as being limited to the corresponding structure identified in the specification for performing the claimed function, and equivalents thereof. *See,*

Co. v. Chemquest, Inc., 303 F.3d 1294, 1301, 64 USPQ2d 1270, 1274 (Fed. Cir. 2002). "It is axiomatic that claims are construed the same way for both invalidity and infringement." *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1330, 65 USPQ2d 1385, 1396 (Fed. Cir. 2003). Meritor argues on appeal that "[i]f claim 14 is as broad as the District Court said, then the Dana/Cummins trucks anticipate it" so long as the Dana/Cummins trucks are prior art.

Meritor's first argument is contingent on our agreeing with the district court's claim construction. As previously discussed, we do not agree with that construction and therefore reject Meritor's argument that it is entitled to judgment as a matter of law that the claims are anticipated.

B

[3] Meritor alternatively argues that if this court rejects the district court's claim construction (as we have done) it is entitled to a new trial on the anticipation and obviousness issues. We disagree. The mere fact that a new claim construction has been adopted on appeal is insufficient, in and of itself, to require a new trial. Meritor, who argued for this new claim construction, must show some error in the way the trial was conducted and demonstrate that the error was prejudicial. *See, e.g., Ecoblab Inc. v. Paraclipse, Inc.*, 285 F.3d 1362, 1373, 62 USPQ2d 1349, 1356 (Fed. Cir. 2002). Meritor has failed to establish any prejudice. We fail to see how in this case our adoption of a narrower claim construction would make it easier for Meritor to establish invalidity at a new trial. *See, e.g., Teleflex, Inc. v. Ficoso N. Am. Corp.*, 299 F.3d 1313, 1328-29, 63 USPQ2d 1374, 1383 (Fed. Cir. 2002) (refusing to grant defendant a new trial on infringement where the claim construction was broadened on appeal). Under these circumstances, the fact that the claim construction has been altered on appeal provides no ground for a new trial.

C

According to 35 U.S.C. § 102(f), a person is not entitled to a patent if "he did not himself invent the subject matter sought to be patented." To prove derivation under § 102(f), "the party asserting invalidity must prove both prior conception of the invention by another and communication of that conception

to the patentee" by clear and convincing evidence. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 1576, 42 USPQ2d 1378, 1381 (Fed. Cir. 1997). The communication must be sufficient to enable one of ordinary skill in the art to make the patented invention. *Id.* at 1578, 42 USPQ2d at 1382-83. This court reviews a finding of derivation as a question of fact. *Id.* at 1576, 42 USPQ2d at 1381.

Meritor argues that Braun, the inventor of the '236 patent, derived the claimed invention from the Cummins Top 2 system. According to Meritor, Dean Anderson of Cummins Engine Company conceived of a system for clutchless shifting of the two highest gears on December 1, 1986. This system automatically controlled the fuel to the engine to achieve the appropriate torque conditions for clutchless shifting. Meritor alleges that Braun learned about this system when Cummins disclosed aspects of its shift algorithm to Braun on August 4, 1987, and October 26, 1987. Meritor believes that the disclosures on these dates were sufficiently enabling because they provided as much detail as the specification of the '236 patent, which the jury found to be enabled, and Eaton engineers were able to build a clutchless shifting system based on the same level of detail.

In response, Eaton argues that it presented evidence that Braun first conceived of the invention claimed by the '236 patent as early as 1977. Eaton also presented testimony from Braun that he did not know how the Cummins Top 2 system operated at the time the application for the '236 patent was filed. Dean Anderson likewise testified that Cummins kept the details of the operation of the Top 2 system confidential and that the documents relied on by Meritor as describing the Top 2 system only described it generically.

[4] In denying Meritor's motion for judgment as a matter of law, the district court concluded that Meritor failed to prove that any disclosure by Cummins to Braun about the Top 2 system was in sufficient detail to enable a person of ordinary skill in the art to practice the claimed invention. We agree. As the appellant, Meritor "must show that the jury's findings, presumed or express, are not supported by substantial evidence or, if they were, that the legal conclusion(s) implied from the jury's verdict cannot in law be supported by those findings." *Perkin-Elmer Corp. v. Computervi-*

sion Corp., 732 F.2d 888, 893, 221 USPQ 669, 673 (Fed. Cir. 1984). In determining whether the jury's verdict is supported by substantial evidence, "we must draw all reasonable inferences in favor of the prevailing party, and not make credibility determinations or substitute our view of the conflicting evidence for that of the jury." *SIBIA Neurosciences*, 225 F.3d at 1355, 55 USPQ2d at 1930. While Meritor may have some evidence that it interprets as showing that a sufficient disclosure of the Top 2 system was made to Braun, Eaton has identified substantial evidence to support the conclusion that any communications by Cummins to Braun about the Top 2 system were insufficiently detailed to constitute a complete and enabling disclosure of the claimed invention. We therefore affirm the district court's denial of judgment as a matter of law on this issue.

Meritor also argues that it is entitled to a new trial on the issue of derivation because the jury's verdict is against the great weight of the evidence. We review the district court's denial of Meritor's motion for new trial on this basis for an abuse of discretion. *Greenleaf*, 174 F.3d at 365. We should reverse the district court's decision "only when the record shows that the jury's verdict resulted in a miscarriage of justice or where the verdict, on the record, cries out to be overturned or shocks our conscience." *Id.* at 366. No such circumstances exist in this case. The balance of the evidence indicates that any disclosure of the Top 2 system to Braun was not in sufficient detail to disclose and enable the complete invention claimed by the '236 patent. We therefore affirm the district court's denial of Meritor's motion for a new trial on the issue of derivation.

III

"A patent applicant commits inequitable conduct when, during prosecution of the application, he makes an affirmative representation of a material fact, fails to disclose material information, or submits false material information, and does so with the intent to deceive." *Amgen*, 314 F.3d at 1358, 65 USPQ2d at 1418. After holding a bench trial, the district court concluded that neither Braun nor his attorney had committed inequitable conduct by failing to disclose the Dana Top 4 and Cummins Top 2 systems. The court assumed that the Top 4 and Top 2 systems were prior art, but concluded that they were not material

because they used a different kind of fuel control than the invention of the '236 patent. The district court also concluded that there was no evidence of an intent to deceive the Patent Office, but rather that the evidence showed good faith by Eaton during prosecution of the '236 patent. On appeal, Meritor argues that the district court's materiality analysis was erroneous because it used an improper claim construction and an improper test for anticipation. Meritor also disagrees with the district court's finding of no intent to deceive. According to Meritor, it presented sufficient evidence to create a *prima facie* case of an intent to deceive, which Eaton failed to rebut.

Meritor's evidence of intent included certain documents allegedly showing the state of mind of Braun and his patent attorney during the preparation and pendency of the application for the '236 patent. Meritor interprets these documents as showing that Braun and Eaton knew about the Top 4 and Top 2 systems and believed them to be highly material. Relying on *Paragon Podiatry Laboratory, Inc. v. KLM Laboratories, Inc.*, 984 F.2d 1182, 25 USPQ2d 1561 (Fed. Cir. 1993), Meritor argues that neither Braun nor Gordon provided an explanation for why they failed to disclose the Top 4 and Top 2 systems to the Patent Office and that Meritor is therefore entitled to an inference of an intent to deceive.

In *Paragon Podiatry*, we reviewed the district court's grant of summary judgment of inequitable conduct based on the patentee's submission of deceptive affidavits and the failure to disclose prior sales of the invention. In the course of determining whether the evidence submitted by the parties gave rise to a genuine issue of material fact, we stated that a "party charging inequitable conduct may make a *prima facie* case by showing an unexplained violation of the duty of candor." *Id.* at 1192, 25 USPQ2d at 1569. "However, *Paragon* does not hold that there need be no evidence of culpable intent. . . . The court did not hold in *Paragon* that intent could be found without any factual basis." *Fiskars, Inc. v. Hunt Mfg. Co.*, 221 F.3d 1318, 1327, 55 USPQ2d 1569, 1577 (Fed. Cir. 2000). *Paragon Podiatry* "explained that absent credible evidence of good faith, evidence of a knowing failure to disclose sales that 'bear all the earmarks of commercialization reasonably supports an inference that the inventor's attorney intended to mislead the PTO.'" *Brasseler*,

U.S.A. I, L.P. v. Stryker Sales Corp., 267 F.3d 1370, 1383, 60 USPQ2d 1482, 1490 (Fed. Cir. 2001).

[5] We disagree that there is an absence of evidence of good faith that would allow an inference of intent to deceive based on an alleged failure to explain why Eaton did not disclose the Top 2 and Top 4 systems to the Patent Office. The district court specifically found that Eaton presented credible evidence of good faith. Meritor has not challenged this evidence on appeal nor provided any other explanation for why it was erroneous for the district court to conclude that this evidence showed good faith by Eaton. *See Kingsdown*, 863 F.2d at 876, 9 USPQ2d at 1392 (requiring an appellant to "establish that the ruling is based upon clearly erroneous findings of fact or a misapplication or misinterpretation of applicable law or that the ruling evidences a clear error of judgment on the part of the district court"). Because we are not persuaded that the district court has abused its discretion, we affirm the district court's judgment of no inequitable conduct.

CONCLUSION

The district court in this case erroneously determined that the preamble of claim 14 was not a limitation of the claim. While Meritor has identified other aspects of the district court's claim construction that it believes are erroneous, we need not reach those issues in order to resolve this case. When the preamble of claim 14 is treated as limiting the claimed invention, there is no dispute that Meritor does not infringe claims 14-19. We therefore reverse the judgment of infringement and vacate the award of damages and entry of a permanent injunction. In addition, Meritor has identified no basis for reversing the judgment of no invalidity when the preamble is treated as a claim limitation. We therefore affirm the judgment of no invalidity. Finally, we are not persuaded that the district court abused its discretion in entering judgment of no inequitable conduct. We therefore affirm the judgment of no inequitable conduct.

REVERSED-IN-PART, VACATED-IN-PART, AND AFFIRMED-IN-PART.

Lockheed Martin Corp. v. Space Systems/Loral Inc.

**U.S. Court of Appeals
Federal Circuit**

No. 00-1310

Decided March 24, 2003

JUDICIAL PRACTICE AND PROCEDURE

[1] Procedure — Court of Appeals for the Federal Circuit (§ 410.03)

Procedure — Judicial review — In general (§ 410.4601)

Order in which U.S. Supreme Court vacated judgment of U.S. Court of Appeals for the Federal Circuit, and remanded for reconsideration in light of intervening Supreme Court ruling, does not require Federal Circuit to address prosecution history estoppel issue elucidated in intervening ruling, or preclude resolution of action on some other ground, since case on remand stands in same posture as it before decision in earlier appeal, and there is no indication that order requires Federal Circuit to limit its analysis to theory previously followed; thus, disposition of appeal on grounds other than prosecution history estoppel literally complies with Supreme Court's order in sense that, "in light of" intervening ruling, Federal Circuit has further considered case and determined that district court's judgment should be affirmed on another ground.

PATENTS

[2] Patent construction — Claims — Means (§ 125.1307)

Federal district court improperly broadened means-plus-function limitation of claim for apparatus and method of steering satellite by construing claimed function as "rotating said [reaction] wheel," since function of means-plus-function claim must be construed to include limitations contained in claim language, and since language of claim at issue, which comes after "means for" clause and before "whereby" clause, states function as "rotating said wheel in accordance with a predetermined rate schedule which varies sinusoidally